

Docket No.: 4838-001  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Johann MÄNNER et al.

Application No.: 10/560,834

Confirmation No.:

Filed: February 28, 2007

Art Unit:

For: CELLULOSIC FIBRE OF THE LYOCELL  
TYPE

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Examiner:

**DECLARATION OF JOHANN MÄNNER**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Johann MÄNNER, of A-4852 Weyregg, Gahbergstrasse 6, Austria, hereby declare as follows:

Since 1972 I have been employed by Lenzing Aktiengesellschaft. Lenzing Aktiengesellschaft is one of the biggest producers of cellulosic man-made fibers world-wide.

After my education as laboratory assistant and chemical technologist, I have been working in the pulp production. 1980 I changed in the R&D department for pulp and viscose technology. Since 1988 I have been working in the field of Lyocell fibers.

I am named as a co-inventor of the above-referenced US-Patent Application and am aware of the fact that claims 1-4, 6-8, and 10 of this application are rejected over US 6,235,392 ("LUO").

Furthermore, I understand that the Examiner has rejected an argument that the present invention provides a surprising result, arguing that Figure 1 (only) shows that the desired V ratio results are obtained from fibers having a titer of 13 or more and that this figure and Table 1 of the specification fail to provide results for fiber samples of titers of 6-12 dtex.

As ANNEX 1 to this declaration, I attach a Figure showing, in addition to the data points that were already present in Figure 1 of the present application, data points obtained with fibers having a titer of 6 to 12 dtex.

These data points were obtained by producing fibers under the same conditions as described in the example part of the present application.

As is apparent from the attached chart, there is a sharp decrease of the ratio  $V$  of the fibers from more than 2.5 to less than 2.2 starting from a titer of 6 tex.

I submit that the fibers to which these additional data points relate were obtained by the use of a cellulosic pulp that was different to the cellulosic pulp used for producing the fibers which gave the data points of Figure 1 of the present application.

For this reason, I conducted further experiments using fibers produced with yet another cellulosic pulp. The same sharp decrease of the ratio  $V$  at a titer of about 6 dtex was observed. Therefore, I conclude that this decrease is not dependent on the starting material (the cellulosic pulp).

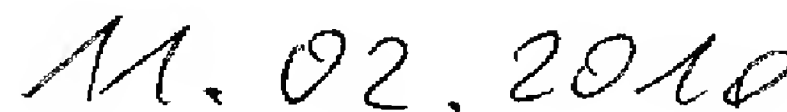
It is quite surprising to me that a Lyocell fiber shows this sharp decrease of the ratio  $V$  at a titer of 6 dtex. Rather, one would expect a continuous and linear gradient of the curve of ratio  $V$  against the titer.

Without wishing to be bound by any theory, I believe that this sudden decrease of the ratio  $V$  in fibers having a titer of from 6 dtex to 25 dtex is a reason for the excellent suitability of these fibers in products like carpets, textile flooring material, wall lining and/or decoration materials. Indeed, as mentioned in the present application, Lyocell fibers in the titer region of 6 dtex and 25 dtex and having a balanced ratio  $V$  of less than 2.2 have a higher flexural stiffness in comparison with viscose fibers.

I hereby declare that all statements made herein of my own knowledge are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



Signed/ Johann Männer



Date